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 FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 12:35:49 ON 27 AUG 2004
L1         41641 S SKARNES?/AU OR BURGESS?/AU OR FRIEDRICH?/AU OR ZAMBROWICZ?/AU
L2           991 S GENE (2A) TRAP
L3          3315 S LIBRARY (3A) CELL
L4          6930 S SPLICE (2A) (DONOR OR ACCEPTOR)
L5           340 S "SPLICE DONOR" (S) "SPLICE ACCEPTOR"
L6          1385 S RANDOM (S) INTEGRATION
L7           226 S "PROMOTER TRAP"
L8             7 S "SPLICE ACCEPTOR" (2A) TRAP
L9             0 S "SPLICE DONOR" (2A) TRAP
L10            5 S L7 AND L6
L11            4 DUP REM L10 (1 DUPLICATE REMOVED)
L12           87 S L1 AND L2
L13           24 S L12 NOT PY>=1998
L14            9 DUP REM L13 (15 DUPLICATES REMOVED)
L15           17 S L4 AND L1
L16            7 DUP REM L15 (10 DUPLICATES REMOVED)
L17            3 S L16 NOT PY>=1998
L18            0 S L5 AND L1
L19            6 S L3 AND L5
L20            3 DUP REM L19 (3 DUPLICATES REMOVED)
L21            0 S L6 AND L5
L22          453 S "SPLICE ACCEPTOR" (P) "SPLICE DONOR"
L23            0 S L22 AND L6
L24            0 S RANDOME (S) INSERTION
L25         1491 S RANDOM (S) INSERTION
L26            0 S L25 AND L22
L27         2941 S INSERTION (2A) ELEMENT
L28            3 S L27 AND L22
L29            1 DUP REM L28 (2 DUPLICATES REMOVED)
L30            5 S  S[EMD
L31           39 S "FIRST CONSTRUCT" (P) "SECOND CONSTRUCT"
L32            0 S L31 AND L4
L33        14239 S POLYA OR POLYADENYLATION
L34            2 S L33 AND L31
L35            1 DUP REM L34 (1 DUPLICATE REMOVED)
L36            0 S L7 AND L33
L37            0 S L7 AND L31
L38           63 S "FIRST VECTOR" AND "SECOND VECTOR"
L39            0 S "FIRST CONSRUCT" AND "SECOND CONSTRUCT"
L40           39 S "FIRST CONSTRUCT" AND "SECOND CONSTRUCT"
L41            0 S L38 AND L7
L42           13 S L38 AND PROMOTER
L43            7 DUP REM L42 (6 DUPLICATES REMOVED)
L44        99178 S SPLIC?
L45         1836 S L44 AND (DONOR (S) ACCEPTOR)
L46          308 S L45 AND PROMOTER
L47           26 S L46 AND (INSERTION OR INTEGRATION OR RECOMBINATION)
L48           16 S L47 NOT PY>=1998
L49            7 DUP REM L48 (9 DUPLICATES REMOVED)

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NSWER 2 OF 7 EMBASE
on STN

ACCESSION NUMBER: 93047240 EMBASE
DOCUMENT NUMBER: 1993047240
TITLE: Frequent activation of the lck gene by **promoter insertion** and aberrant **splicing** in murine leukemia virus-induced rat lymphomas.
AUTHOR: Shin S.; Steffen D.L.
CORPORATE SOURCE: Department of Cell Biology, Division of Molecular Virology, Baylor College of Medicine,Houston, TX 77030, United States
SOURCE: Oncogene, (1993) 8/1 (141-149).
ISSN: 0950-9232 CODEN: ONCNES
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
016 Cancer
022 Human Genetics
025 Hematology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB We have analysed DNA and RNA from 36 T-cell lymphomas induced in Fischer rats by Moloney murine leukemia virus for alterations affecting the structure or expression of the lck gene. At least five primary tumors (14%) have a proviral **insertion** upstream of lck. In at least four of the tumors, proviral **insertion** increases lck mRNA levels an average of eight-fold. Overexpression of lck results from transcription initiating in the viral **promoter** and extending into lck sequences. Three different structures of hybrid transcript were detected. In all three, the hybrid RNAs are **spliced** to a normal lck **splice acceptor** in the first exon of lck, resulting in

SWER 1 OF 9 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 97268648 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9108056
TITLE: Disruption of overlapping transcripts in the ROSA beta geo 26 **gene trap** strain leads to widespread expression of beta-galactosidase in mouse embryos and hematopoietic cells.
AUTHOR: **Zambrowicz B P**; Imamoto A; Fiering S; Herzenberg L A; Kerr W G; **Soriano P**
CORPORATE SOURCE: Division of Basic Sciences, Fred Hutchinson Cancer Research Center, Seattle, WA 98109, USA.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1997 Apr 15) 94 (8) 3789-94. Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U83173; GENBANK-U83174; GENBANK-U83175; GENBANK-U83176
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 19970602
Last Updated on STN: 19990129
Entered Medline: 19970522

AB The ROSA beta geo26 (ROSA26) mouse strain was produced by random retroviral gene trapping in embryonic stem cells. Staining of ROSA26 tissues and fluorescence-activated cell sorter-Gal analysis of hematopoietic cells demonstrates ubiquitous expression of the proviral beta geo reporter gene, and bone marrow transfer experiments illustrate the general utility of this strain for chimera and transplantation studies. The **gene trap** vector has integrated into a region that produces three transcripts. Two transcripts, lost in ROSA26 homozygous animals, originate from a common promoter and share identical 5' ends, but neither contains a significant ORF. The third transcript, originating from the reverse strand, shares antisense sequences with one of the noncoding transcripts. This third transcript potentially encodes a novel protein of at least 505 amino acids that is conserved in humans and in Caenorhabditis elegans.

L14 ANSWER 2 OF 9 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 1998104241 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9441674
TITLE: The secretory protein Sec8 is required for paraxial mesoderm formation in the mouse.
AUTHOR: **Friedrich G A**; Hildebrand J D; **Soriano P**
CORPORATE SOURCE: Division of Basic Sciences, Fred Hutchinson Cancer Research Center, Seattle, Washington 98104, USA.
SOURCE: Developmental biology, (1997 Dec 15) 192 (2) 364-74. Journal code: 0372762. ISSN: 0012-1606.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199802
ENTRY DATE: Entered STN: 19980226
Last Updated on STN: 19980226
Entered Medline: 19980213

AB The sec8 gene, isolated in a **gene trap** screen in embryonic stem cells, is required for paraxial mesoderm formation in the mouse. Homozygous sec8 mutant embryos initiate gastrulation but are unable to progress beyond the primitive streak stage and die shortly afterward. The genomic locus and cDNA of the sec8 gene have been cloned. An open reading frame in the cDNA encodes a 971-amino-acid leucine-rich

protein, similar to rat rSec8. A description of the mutant phenotype and the cloning of the gene is presented here and the results are considered in light of the possibility that the Sec8 protein is involved in secretion.

L14 ANSWER 3 OF 9 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 97228906 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9074932
TITLE: Rapid sequence analysis of **gene trap** integrations to generate a resource of insertional mutations in mice.
AUTHOR: Townley D J; Avery B J; Rosen B; **Skarnes W C**
CORPORATE SOURCE: Biotechnology and Biological Sciences Research Council (BBSRC), University of Edinburgh, UK.
SOURCE: Genome research, (1997 Mar) 7 (3) 293-8.
Journal code: 9518021. ISSN: 1088-9051.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L34049; GENBANK-M15525; GENBANK-U15571; GENBANK-U39545; GENBANK-U50196; GENBANK-X61172; GENBANK-X83577
ENTRY MONTH: 199705
ENTRY DATE: Entered STN: 19970609
Last Updated on STN: 19970609
Entered Medline: 19970528

AB Gene trapping in murine embryonic stem cells is a proven method for the simultaneous identification and mutation of genes in the mouse. **Gene trap** vectors are designed to detect insertions within genes through the production of a fusion mRNA transcript, making the identification of the endogenous gene possible by 5' rapid amplification of cDNA ends (RACE). Although the amplification of specific cDNAs can be achieved rapidly, cloning and screening of informative-sized cDNAs has proven to be time consuming. To eliminate the need for cloning, we have developed a method for solid-phase sequencing of 5' RACE products. More than 150 independent **gene trap** cell lines were analyzed, and sequence information was obtained for every line successfully amplified by RACE. With the vector used in this study, 40% of the cell lines were found to contain properly spliced **gene trap** events. The remaining lines were either spliced inefficiently or contained deletions of the vector. These results highlight the advantage of sequencing **gene trap** integrations before further characterization. This work now paves the way for large-scale **gene trap** screens in mice and should greatly accelerate the functional analysis of the mammalian genome.

L14 ANSWER 4 OF 9 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 95327693 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7604039
TITLE: Capturing genes encoding membrane and secreted proteins important for mouse development.
AUTHOR: **Skarnes W C**; Moss J E; Hurtley S M; Beddington R S
CORPORATE SOURCE: Biotechnology and Biological Sciences Research Council, Centre for Genome Research, University of Edinburgh, United Kingdom.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1995 Jul 3) 92 (14) 6592-6.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U23505; GENBANK-U23536
ENTRY MONTH: 199508
ENTRY DATE: Entered STN: 19950822
Last Updated on STN: 20000303
Entered Medline: 19950810

AB A strategy based on the **gene trap** was developed to prescreen mouse embryonic stem cells for insertional mutations in genes encoding secreted and membrane-spanning proteins. The "secretory trap" relies on capturing the N-terminal signal sequence of an endogenous gene to generate an active beta-galactosidase fusion protein. Insertions were found in a cadherin gene, an unc6-related laminin (netrin) gene, the sek receptor tyrosine kinase gene, and genes encoding two receptor-linked protein-tyrosine phosphatases, LAR and PTP kappa. Analysis of homozygous mice carrying insertions in LAR and PTP kappa showed that both genes were effectively disrupted, but neither was essential for normal embryonic development.

L14 ANSWER 5 OF 9 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 95237018 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7720590
TITLE: The T gene is necessary for normal mesodermal morphogenetic cell movements during gastrulation.
AUTHOR: Wilson V; Manson L; **Skarnes W C**; Beddington R S
CORPORATE SOURCE: Laboratory of Mammalian Development, National Institute for Medical Research, London, UK.
SOURCE: Development (Cambridge, England), (1995 Mar) 121 (3) 877-86.
Journal code: 8701744. ISSN: 0950-1991.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199505
ENTRY DATE: Entered STN: 19950605
Last Updated on STN: 19950605
Entered Medline: 19950524

AB The T (Brachyury) deletion in mouse is responsible for defective primitive streak and notochord morphogenesis, leading to a failure of the axis to elongate properly posterior to the forelimb bud. T/T embryonic stem (ES) cells colonise wild-type embryos, but in chimeras at 10.5 days post coitum (dpc) onwards they are found predominantly in the distal tail, while trunk paraxial and lateral mesoderm are deficient in T/T cells (Wilson, V., Rashbass, P. and Beddington, R. S. P. (1992) Development 117, 1321-1331). To determine the origin of this abnormal tissue distribution, we have isolated T/T and control T/+ ES cell clones which express lacZ constitutively using a **gene trap** strategy.
Visualisation of T/T cell distribution in chimeric embryos throughout gastrulation up to 10.5 dpc shows that a progressive buildup of T/T cells in the primitive streak during gastrulation leads to their incorporation into the tailbud. These observations make it likely that one role of the T gene product is to act during gastrulation to alter cell surface (probably adhesion) properties as cells pass through the primitive streak. As the chimeric tail elongates at 10.5 dpc, abnormal morphology in the most distal portion becomes apparent. Comparison of T expression in the developing tailbud with the sites of accumulation of T/T cells in chimeras shows that T/T cells collect in sites where T would normally be expressed. T expression becomes internalised in the tailbud following posterior neuropore closure while, in abnormal chimeric tails, T/T cells remain on the surface of the distal tail. We conclude that prevention of posterior neuropore closure by the wedge of T/T cells remaining in the primitive streak after gastrulation is one source of the abnormal tail phenotypes observed. Accumulation of T/T cells in the node and anterior streak

during gastrulation results in the preferential incorporation of T/T cells into the ventral portion of the neural tube and axial mesoderm. The latter forms compact blocks which are often fused with the ventral neural tube, reminiscent of the notochordal defects seen in intact mutants. Such fusions may be attributed to cell-autonomous changes in cell adhesion, possibly related to those observed at earlier stages in the primitive streak.

L14 ANSWER 6 OF 9 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1996:52984 BIOSIS
DOCUMENT NUMBER: PREV199698625119
TITLE: Trans-splicing in mammalian cells as revealed by **gene trap** integrations into ribosomal RNA genes.
AUTHOR(S): Sleeman, J. E.; Rosen, B.; Moss, J. E.; **Skarnes, W. C.**
CORPORATE SOURCE: BBSRC Centre Genome Research, Univ. Edinburgh, Kings Buildings, West Mains Rd., Edinburgh EH9 3JQ, UK
SOURCE: Molecular Biology of the Cell, (1995) Vol. 6, No. SUPPL., pp. 195A.
Meeting Info.: Thirty-fifth Annual Meeting of the American Society for Cell Biology. Washington, D.C., USA. December 9-13, 1995.
CODEN: MBCEEV. ISSN: 1059-1524.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 2 Feb 1996
Last Updated on STN: 2 Feb 1996

L14 ANSWER 7 OF 9 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 95047373 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7958896
TITLE: Transcriptional enhancer factor 1 disruption by a retroviral **gene trap** leads to heart defects and embryonic lethality in mice.
AUTHOR: Chen Z; **Friedrich G A**; **Soriano P**
CORPORATE SOURCE: Program in Molecular Medicine, Fred Hutchinson Cancer Research Center, Seattle, Washington 98104.
CONTRACT NUMBER: HD24875 (NICHD)
SOURCE: Genes & development, (1994 Oct 1) 8 (19) 2293-301.
Journal code: 8711660. ISSN: 0890-9369.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-S74227
ENTRY MONTH: 199412
ENTRY DATE: Entered STN: 19950110
Last Updated on STN: 19960129
Entered Medline: 19941207

AB We have used a retroviral **gene trap** in embryonic stem (ES) cells to derive a recessive embryonic lethal mouse strain, ROSA beta-geo5. Mutant embryos display an enlarged pericardial cavity, bradycardia, a dilated fourth ventricle in the brain, and die between embryonic days 11 and 12. Whereas heart development in the mutant embryos is extensive, the ventricular wall is abnormally thin with a reduced number of trabeculae. Cloning of the trapped gene indicates that proviral insertion creates a null mutation in the transcriptional enhancer factor 1 (TEF-1) gene. Although transcription of a number of muscle-specific genes believed to be TEF-1 targets appears normal, the defect in cardiogenesis is likely attributable to diminished transcription of one or several

cardiac-specific genes.

L14 ANSWER 8 OF 9 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 92275355 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1592261
TITLE: A **gene trap** approach in mouse embryonic stem cells: the lacZ reported is activated by splicing, reflects endogenous gene expression, and is mutagenic in mice.
AUTHOR: **Skarnes W C**; Auerbach B A; Joyner A L
CORPORATE SOURCE: Department of Molecular and Medical Genetics, University of Toronto, Canada.
CONTRACT NUMBER: HD25334 (NICHD)
SOURCE: Genes & development, (1992 Jun) 6 (6) 903-18.
Journal code: 8711660. ISSN: 0890-9369.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-M79310; GENBANK-M81118; GENBANK-M82887; GENBANK-S37046; GENBANK-S37047; GENBANK-S37048; GENBANK-S49473; GENBANK-S49475; GENBANK-X65112; GENBANK-X65113
ENTRY MONTH: 199207
ENTRY DATE: Entered STN: 19920710
Last Updated on STN: 19920710
Entered Medline: 19920702

AB We have confirmed that the **gene trap** vector pGT4.5 creates spliced fusion transcripts with endogenous genes and prevents the synthesis of normal transcripts at the site of integration. cDNA was prepared to the lacZ fusion transcript in three ES cell lines to recover endogenous exon sequences upstream of lacZ. Each of the clones detected a unique-sized endogenous transcript, as well as the fusion transcript in the ES cell line from which the clone was derived. Sequence analysis of these clones and larger clones isolated from a random-primed cDNA library showed that the splice acceptor was used properly. For two insertions, the expression patterns of the lacZ reporter and the associated endogenous gene were compared in situ at three embryonic stages and were found to be similar. Three **gene trap** insertions were transmitted into the germ line, and abnormalities were observed with two of the three insertions in the homozygous state. RNA obtained from mice homozygous for the two mutant **gene trap** insertions was analyzed for normal endogenous transcripts and negligible amounts were detected, indicating that little splicing around the **gene trap** insertion occurred. This work demonstrates the capacity of the **gene trap** vector to generate lacZ fusion transcripts, to accurately report endogenous gene expression, and to mutate the endogenous gene at the site of integration.

L14 ANSWER 9 OF 9 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 92387040 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1516474
TITLE: The **gene trap** approach in embryonic stem cells: the potential for genetic screens in mice.
AUTHOR: Joyner A L; Auerbach A; **Skarnes W C**
CORPORATE SOURCE: Division of Molecular and Developmental Biology, Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Canada.
SOURCE: Ciba Foundation symposium, (1992) 165 277-88; discussion 288-97. Ref: 23
Journal code: 0356636. ISSN: 0300-5208.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199210
ENTRY DATE: Entered STN: 19921023
Last Updated on STN: 19921023
Entered Medline: 19921006

AB The **gene trap** approach in embryonic stem cells was developed as a means to screen for genes expressed during early postimplantation development in the mouse. We have validated the approach by showing that lacZ from the integrated vector is activated by splicing to endogenous exons and expressed in embryos in patterns that mimic those of the endogenous genes. These insertions can produce developmental defects in homozygous mice. The results indicate that a large screen of **gene trap** cell lines on the basis of embryonic lacZ expression is feasible and should provide a new source of genes, mouse mutants and mouse strains that express lacZ in particular domains and lineages. The **gene trap** approach could be extended to a smaller screen for genes based on mutant phenotypes.

L Number	Hits	Search Text	DB	Time stamp
1	3	6436707.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:25
2	58908	|435/7.1|435/7.2|435/354|800/18|435/325|435[illegible]435/25[illegible]435/5|435/455|	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:29
3	407	("splice acceptor" WITH donor) and (library WITH cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:29
4	261	|435/7.1|435/7.2|435/354|800/18|435/325|435[illegible]435/25[illegible]435/5|435/455| and (("splice acceptor" WITH donor) and (library WITH cell))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:30
5	216	library WITH "eukaryotic cells"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:30
6	68	((gene with trap$) and ("splice donor" or "splice acceptor")) and "random mutagenesis"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:30
8	20	(|435/7.1|435/7.2|435/354|800/18|435/325|4[illegible]435/2[illegible]435/5|435/455 and (("splice acceptor" WITH donor) and (library WITH cell))) and (((gene with trap$) and ("splice donor" or "splice acceptor")) and "random mutagenesis")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:31
7	13	(|435/7.1|435/7.2|435/354|800/18|435/325|4[illegible]435/2[illegible]435/5|435/455 and (("splice acceptor" WITH donor) and (library WITH cell))) and (library WITH "eukaryotic cells")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:31
-	99919	library	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:16
-	1	(library WITH "eukaryotic cells") SAME subpopulation	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 09:17
-	6	(library WITH "eukaryotic cells") SAME (mutation or integration)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 10:08
-	0	5679523.pn. With "mutated cells"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 09:19
-	0	5679523.pn. SAME "mutated cells"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 09:19
-	0	5679523.pn. SAME "random mutation"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 09:20
-	0	5679523.pn. and "random mutation"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 09:21
-	2	5679523.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 09:37
-	2	"tagged random mutagenesis"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 09:37

-	0	library and "high througput mutagenesis"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 10:08
-	6	"high throughput mutagenesis"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/27 12:30
-	4	6207371.pn. or 6136566.pn. or 6139833.pn	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 10:10
-	6	6207371.pn. or 6136566.pn. or 6139833.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 10:35
-	0	"nonspecific integration".	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 10:35
-	0	library SAME (nonspecific WITH (mutagenisis or mutation))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 10:36
-	51	nonspecific WITH (mutagenisis or mutation)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 11:09
-	172	"gene trapping"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 11:10
-	0	"gene trapping" SAME 5679523.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 11:10
-	43	"gene trapping" SAME library	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 11:29
-	32	"gene trapping" and nonspecific	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 11:30
-	21	("gene trapping" and nonspecific) and integration	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:53
-	4118	"random mutagenesis"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:53
-	0	"random mutagenesis" With "gene trap"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:53
-	0	"random mutagenesis" SAME "gene trap"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:53
-	0	"random mutagenesis" SAME "gene trapping"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:54
-	0	"random mutagenesis" SAME "splice donor"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:54
-	1441	gene with trap$	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:54

-	6367264	s "random mutagenesis" and ("random mutagenesis" With "gene trap")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:55
-	0	"random mutagenesis" with ("random mutagenesis" With "gene trap")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:55
-	0	"random mutagenesis" same ("random mutagenesis" With "gene trap")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:55
-	0	"random mutagenesis" and ("random mutagenesis" With "gene trap")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:55
-	420	(gene with trap$) and ("splice donor" or "splice acceptor")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 14:56
-	2	5679523.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/02/25 15:01
-	2	5679523.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 12:54
-	27927	sands.in. or friedrich.in. or zambrowicz.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 12:56
-	6993	mutagenesis and "embryonic stem"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 12:56
-	44	(sands.in. or friedrich.in. or zambrowicz.in.) and (mutagenesis and "embryonic stem")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:30
-	282	lexicon.as.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:06
-	28	lexicon.as. and stem NEAR2 cell	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:08
-	1423	"splice acceptor" WITH donor	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:08
-	1217	"splice acceptor" SAME "splice donor"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:08
-	18686	library WITH cell	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:09
-	2854	"first vector" SAME "second vector"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:11
-	328	"first construct" SAME "second construct"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:11
-	6769	polyA or (poly NEAR4 adenyl$)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:31

-	119140	SV40 or promoter	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 13:51
-	3	6436707.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 14:31
-	857	gene NEAR2 trap$6	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:18
-	97	(gene NEAR2 trap$6) and (sands.in. or friedrich.in. or zambrowicz.in.)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:18
-	32	((gene NEAR2 trap$6) and (sands.in. or friedrich.in. or zambrowicz.in.)) and (library WITH cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:18
-	3	(((gene NEAR2 trap$6) and (sands.in. or friedrich.in. or zambrowicz.in.)) and (library WITH cell)) and ("first vector" SAME "second vector")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:19
-	66	lexicon.as. and (gene NEAR2 trap$6)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:19
-	3	(lexicon.as. and (gene NEAR2 trap$6)) and ("first vector" SAME "second vector")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:19
-	22	(("splice acceptor" WITH donor) and (library WITH cell)) and ("first vector" SAME "second vector")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:25
-	29	(polyA or (poly NEAR4 adenyl$)) SAME ("splice acceptor" WITH donor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:26
-	6	((polyA or (poly NEAR4 adenyl$)) SAME ("splice acceptor" WITH donor)) and (library WITH cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:29
-	9949	"embryonic stem cell"	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:29
-	182	"embryonic stem cell" SAME (gene NEAR2 trap$6)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:30
-	3	((gene NEAR2 trap$6) and (sands.in. or friedrich.in. or zambrowicz.in.)) and ("first vector" SAME "second vector")	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:30
-	139	("embryonic stem cell" SAME (gene NEAR2 trap$6)) and ("splice acceptor" WITH donor)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:30
-	26	(("embryonic stem cell" SAME (gene NEAR2 trap$6)) and ("splice acceptor" WITH donor)) and (polyA or (poly NEAR4 adenyl$))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/08/24 15:30

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